

REMARKS

Claims 34, 47, and 55 have been amended. Therefore, claims 34-58 are pending in the present application.

The Examiner rejected claims 53, 54, and 58 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully submit that these claims are fully supported by the written description in the specification. As the Examiner is aware, the specification of the present application describes several embodiments. The description in support of claims 53, 54, and 58 can be found between page 26, line 21 and page 27, line 7 of the specification, which describes one embodiment of the association process between the remote unit and the base unit. In the described embodiment on these pages, the base unit returns a Response (to the Request from the remote unit) in which a synchronization interval is included. In view of this disclosure, the Examiner is respectfully requested to withdraw this rejection and allow claims 53, 54, and 58.

The Examiner rejected claims 34, 40, 42, and 45-48 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,275,166 (*del Castillo*). Applicants respectfully traverse this rejection. The Examiner acknowledges that *del Castillo* teaches that HTU 18 (which the Examiner asserts corresponds to the first-tier base station) and all AMSs 12 (which the Examiner asserts corresponds to second-tier base stations) communicate using the same mechanism (*i.e.*, frequency shift key shift keying (FSK) RF modem signals). Moreover, *del Castillo* further discloses that all of the AMSs 12 also employ this same FSK mechanism for communication. In contrast, amended claims, in particular independent claims 34 and 47, specify that the first-tier

base station and the first second-tier base station communicate using the first communications protocol, while the second-tier base stations communicate with each other using a second communications protocol that is different from the first communications protocol. Thus, at least this claimed feature is missing from *del Castillo*. Accordingly, claims 34, 40, 42, and 45-48 are allowable over *del Castillo*.

The Examiner rejected claims 34, 37-43, 45-48, 51-55, and 58 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,790,536 (*Mahany*) in view of *del Castillo*. Applicants respectfully traverse this rejection, and assert that neither *Mahany*, nor *del Castillo*, when considered alone or in combination, teach using at least two different communication protocols, a first communication protocol and a second communication protocol. While *Mahany* describes two types of LANs, a premise LAN and a peripheral LAN, it teaches that the access points comprising these types of LANs all use the same communications protocol, namely the 802.3 (Ethernet) or 802.5 (Token Ring). See *Mahany*, col. 25, lines 63-65. Additionally, *Mahany* clarifies that the devices on the premise LAN and peripheral LAN use the same "reservation access protocol." *Id.* at col. 11, lines 5-19. Specifically, *Mahany* states that access points 15 on the premise LAN use spread-spectrum frequency-hopping communication with a "reservation access protocol," and the devices on the peripheral LAN use lower-power single frequency communication "also with a reservation access protocol." (emphasis supplied). According to *Mahany*, the "reservation access protocol" facilitates frequency-hopping and supports adaptive data rate selection. *Id.* *Mahany* itself distinguishes "frequency-hopping communication" from a "communications protocol," stating that "frequency hopping" is a transmission technique (as opposed to a protocol) that has the ability to combat frequency

selective fading, avoid narrowband interference, and provide multiple communications channels. *See Id.* at col. 2, lines 53-57.

In the Office Action, the Examiner asserts that *Mahany* teaches spread-spectrum frequency-hopping communication and lower-power single frequency communication. *See* pages 6-7 of the Office Action. According to the Examiner, these different frequency-type communications constitute two different communication protocols. The Applicants disagree. The spread-spectrum frequency-hopping communication and single frequency communication that are referenced by the Examiner are the underlying transmission techniques for communication, and thus do not specify any particular type of communications protocol that may be employed using these methods. Contrary to the Examiner's position, *Mahany* teaches that the various access points in the peripheral or premise LAN all employ the same IEEE 802 protocol or employ the same reservation access protocol. *See Mahany*, col. 25, lines 63-65; col. 11, lines 5-19. Moreover, at col. 11, lines 15-19, *Mahany* clarifies that "spread-spectrum frequency-hopping communication" is a transmission technique (as opposed to a protocol). *Id.* at col. 2, lines 53-57.

The Applicants do not assert that the claimed invention precludes the use of various forms of frequency-type communications. To the contrary, one or more of the claims embrace a variety or plurality of frequency-type of communications methods (including frequency hopping, single frequency, and the like). Applicants do, however, assert that the claimed invention calls for communicating using at least two different communication protocol in the manner specified by the claims. By way of example, the specification of the instant application describes that in

one embodiment, the first communication protocol may be an "IEEE 802 based protocol," and the second communication protocol may be a protocol that operates in conformance with the protocol described on pp. 19-35 and at other locations in the specification. Of course, in alternative embodiments, other suitable public or proprietary protocols may also be employed.

Thus, for reasons presented above, *Mahany* does not teach or even suggest using at least two different communication protocols. *Del Castillo* also fails to supply this limitation. Like *Mahany*, *del Castillo* teaches using the same communication protocols between the various devices. In particular, *del Castillo* teaches, and as shown in Figures 4 and 5, that the same protocol, namely the command/return protocol 60, 70, is used for communications between the HTU 18 and the various AMSs 12. Thus, even in *del Castillo*, the HTU 18 (e.g., the first-tier base station) uses the same protocol to communicate with the so-called level-1 AMS 12 (e.g., the first second-tier station) as is used by the level 1 AMS 12 to communicate with the so-called level 2 AMS 12 (e.g., the second second-tier station).

By allowing the use of at least two-different protocols in the multi-tier architecture of the described invention, it is possible to control remote devices using a variety of arrangements (see Figures 1-8 of the patent application) such that some independency is retained for the first-tier communications segment (e.g., from the first-tier base station to the first second-tier base station) and the second-tier communication segment (e.g., from the first second-tier base station to another second second-tier base station or a remote device). For example, a second-tier base station can communicate with another second-tier station (or even the remote device) using a

proprietary protocol, while still having the flexibility of communicating with devices that employ a standardized (or a different) protocol, such as the first-tier base station, for example.

Accordingly, for the reasons presented above, independent claims 34, 47, and 55, are allowable. Additionally, the rejected claims depending from these independent claims are allowable for at least the same reason. Reconsideration of the present application is respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4064 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

Date: August 12, 2004

WILLIAMS, MORGAN & AMERSON, P.C.
CUSTOMER NO. 23720

By: 

Ruben S. Bains, Reg. No. 46,532
10333 Richmond, Suite 1100
Houston, Texas 77042
(713) 934-7000
(713) 934-7011 (facsimile)
ATTORNEY FOR APPLICANT(S)